

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
 United States Patent and Trademark  
 Office  
 Box PCT  
 Washington, D.C. 20231  
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in its capacity as elected Office

<b>Date of mailing (day/month/year)</b> 01 May 2000 (01.05.00)	
<b>International application No.</b> PCT/KR99/00557	<b>Applicant's or agent's file reference</b> CJJ99014
<b>International filing date (day/month/year)</b> 16 September 1999 (16.09.99)	<b>Priority date (day/month/year)</b> 17 September 1998 (17.09.98)
<b>Applicant</b> CHOI, Jong, Ju et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

23 March 2000 (23.03.00)

☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Juan Cruz Telephone No.: (41-22) 338.83.38
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## P A T E N T COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

KIM, Yeon, Soo  
648-23, Yeoksam-dong  
Kangnam-gu  
Seoul 135-080  
RÉPUBLIQUE DE CORÉE

Date of mailing (day/month/year) 15 February 2001 (15.02.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference CJJ99014	
International application No. PCT/KR99/00557	International filing date (day/month/year) 16 September 1999 (16.09.99)

1. The following indications appeared on record concerning:		
<input checked="" type="checkbox"/> the applicant	<input checked="" type="checkbox"/> the inventor	<input type="checkbox"/> the agent <input type="checkbox"/> the common representative
Name and Address 1. LEE, Kyeng Ja 2. CHOI, Jong Ju 3. JANG, Dong Sik	State of Nationality KR	State of Residence KR
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:		
<input checked="" type="checkbox"/> the person	<input type="checkbox"/> the name	<input type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence
Name and Address 1. VIEWWELL CO., LTD. 702-2, Korea TechnoComplex 1, 5Ga, Anam-dong Sungbuk-gu, Seoul 136-701 Republic of Korea 2. CHOI, Jong Ju 3. JANG, Dong Sik	State of Nationality KR	State of Residence KR
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
3. Further observations, if necessary: <b>ViewWell Co., Ltd. is a new applicant for the purpose of all the designated States except US. CHOI, Jong Ju &amp; JANG, Dong Sik remain as applicants for the purpose of US only.</b>		
4. A copy of this notification has been sent to:		
<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned	
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned	
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:	

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  V. Gross
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38



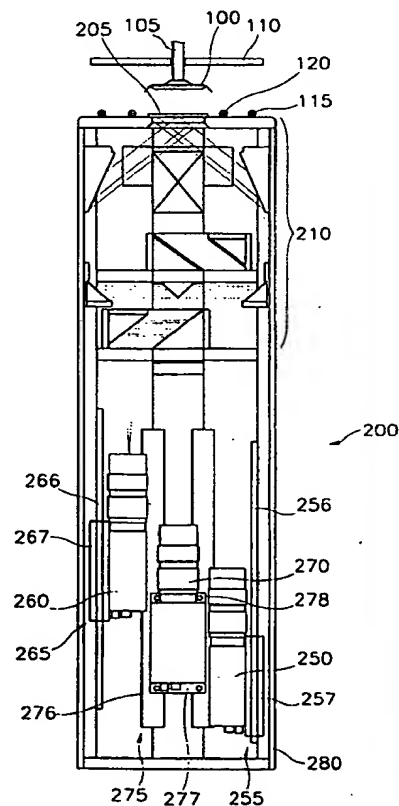
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>G01N 21/88</b>		<b>A1</b>	(11) International Publication Number: <b>WO 00/16076</b>
			(43) International Publication Date: 23 March 2000 (23.03.00)
(21) International Application Number: PCT/KR99/00557		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 16 September 1999 (16.09.99)			
(30) Priority Data: 1998/38479 17 September 1998 (17.09.98) KR 1999/31796 3 August 1999 (03.08.99) KR			
(71) Applicant (for all designated States except US): LEE, Kyeng, Ja [KR/KR]; 3-208 Wangkoong Apt., 300-11, Dongbu Ichon-dong, Yongsan-gu, Seoul 140-031 (KR).			
(72) Inventors; and (75) Inventors/Applicants (for US only): CHOI, Jong, Ju [KR/KR]; 3-208 Wangkoong Apt., 300-11, Dongbu Ichon-dong, Yongsan-gu, Seoul 140-031 (KR). JANG, Dong, Sik [KR/KR]; 2-906 Samick Apt., Anam-dong 3ga, Seongbuk-gu, Seoul 136-073 (KR).			
(74) Agent: KIM, Yeon, Soo; 648-23, Yeoksam-dong, Kangnam-gu, Seoul 135-080 (KR).		<b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	

(54) Title: ELECTRONIC COMPONENT LEAD INSPECTION DEVICE

## (57) Abstract

An electronic component lead inspection device, the device comprising: a pickup header for picking up an electronic component package to move same; a light source for illuminating a light to the electronic component package; an acquiring unit for acquiring an image of the electronic component package underneath a travelling passage of the electronic component package; a control unit for outputting an image signal of the electronic component package acquired by the acquiring unit; and an inspecting and displaying unit for receiving the image signal of the electronic component package output from the control means to inspect and display the image of the electronic component package, such that the electronic component packages can be all inspected on real time, while the electronic component packages are being moved, inspected and produced.



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EE	Estonia	LR	Liberia	SG	Singapore		

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR 99/00557

## A. CLASSIFICATION OF SUBJECT MATTER

IPC<sup>7</sup>: G 01 N 21/88

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>7</sup>: G 01 N 21/88, 21/84

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5406372 A (B.YODANOVIC ), 11 April 1995 (11.04.95), abstract; column 1, lines 12 to 32; column 3, line 30 to 42; claims; fig.3,4.	1,4,5
X	US 5114229 A (O.HIDESHIMA), 19 May 1992 (19.05.92), abstract; claims; fig.1,2,3.	1
A	US 4739175 A (K.TAMURA), 19 April 1988 (19.04.88), abstract; column 2, line 56 to column 3, line 32; claims; fig 1-4.	1
A	WO 97/28420 A1 (KOMATSU), 07 August 1997 (07.08.97), abstract; fig.1,6.	1
A	JP 10-227622 A (TOSOK CORP.) (abstract) 1998-08-25, In: Patent Abstracts of Japan [CD-ROM].	1,2,3
----		

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

„A“ document defining the general state of the art which is not considered to be of particular relevance

„E“ earlier application or patent but published on or after the international filing date

„L“ document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

„O“ document referring to an oral disclosure, use, exhibition or other means

„P“ document published prior to the international filing date but later than the priority date claimed

„T“ later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

„X“ document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

„Y“ document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

„&“ document member of the same patent family

Date of the actual completion of the international search

20 January 2000 (20.01.00)

Date of mailing of the international search report

09 February 2000 (09.02.00)

Name and mailing address of the ISA/AT  
Austrian Patent Office  
Kohlmarkt 8-10; A-1014 Vienna  
Facsimile No. 1/53424/200

Authorized officer

Erber

Telephone No. 1/53424/382

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR 99/00557

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 09-022931 A (HITACHI) (abstract), 1997-01-21, In: Patent Abstracts of Japan [CD-ROM].	1,2,3
A	JP 08-005568A (HITACHI) (abstract), 1996-01-12, In: Patent Abstracts of Japan [CD-ROM].	1,2,3
X	JP 07-151523 A (SANYO ELECTRIC), 1995-06-16, In: Patent Abstracts of Japan [CD-ROM].	1,2
A	JP 03-253981 A (MITSUBISHI), Patent Abstracts of Japan, Vol.16, No.56 (P-1310), 1992, 02.12 (abstract).	1
A	JP 02-51049 A (HITACHI), Patent Abstracts of Japan, Vol.14, No.223 (P-1046), 1990, 05.11 (abstract).	1,4,10,11
A	JP 01-109732 A (HITACHI), Patent Abstracts of Japan, Vol. 13, No.350 (E-800), 1989, 08.07 (abstract).	1

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR 99/00557

Patent document cited in search report				Publication date		Patent family member(s)		Publication date	
US	A	5406372		11-04-1995		AU	A1	61798/94	08-11-1994
						CA	AA	2160556	27-10-1994
						CN	A	1124538	12-06-1996
						EP	A1	694210	31-01-1996
						JP	T2	8508820	17-09-1996
						WO	A1	9424700	27-10-1994
US	A	5114229		19-05-1992		JP	A2	3154802	02-07-1991
						JP	B2	2805909	30-09-1998
US	A	4739175		19-04-1988		JP	A2	62195509	28-08-1987
WO	A1	9728420		07-08-1997		JP	A2	9210652	12-08-1997
JP	A2	10227622		25-08-1998				none	
JP	A2	9022931		21-01-1997				none	
JP	A2	8005568		12-01-1996				none	
JP	A2	7151523		16-06-1995				none	
JP	A2	3253981		13-11-1991				none	
JP	A	251049a						none	
JP	A2	1109732		26-04-1989				none	

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR 99/00557

## A. CLASSIFICATION OF SUBJECT MATTER

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IPC<sup>7</sup>: G 01 N 21/88, 21/84

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	US 5114229 A (O.HIDESHIMA), 19 May 1992 (19.05.92), abstract; claims; fig.1,2,3.	1
A	US 4739175 A (K.TAMURA), 19 April 1988 (19.04.88), abstract; column 2, line 56 to column 3, line 32; claims; fig 1-4.	1
A	WO 97/28420 A1 (KOMATSU), 07 August 1997 (07.08.97), abstract; fig.1,6.	1
A	JP 10-227622 A (TOSOK CORP.) (abstract) 1998-08-25, In: Patent Abstracts of Japan [CD-ROM].	1,2,3
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☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

## \* Special categories of cited documents:

..A" document defining the general state of the art which is not considered to be of particular relevance

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..L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

..O" document referring to an oral disclosure, use, exhibition or other means

..P" document published prior to the international filing date but later than the priority date claimed

..T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

..X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

..Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

..&amp;" document member of the same patent family

Date of the actual completion of the international search

20 January 2000 (20.01.00)

Date of mailing of the international search report

09 February 2000 (0902.00)

Name and mailing address of the ISA/AT

Austrian Patent Office

Kohlmarkt 8-10; A-1014 Vienna

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR 99/00557

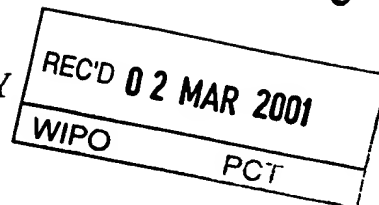
Patent document cited in search report			Publication date	Patent family member(s)			Publication date
US	A	5406372	11-04-1995	AD	A1	61798/94	08-11-1994
				CA	AA	2160556	27-10-1994
				CN	A	1124538	12-06-1996
				EP	A1	694210	31-01-1996
				JP	T2	8508820	17-09-1996
				WO	A1	9424700	27-10-1994
US	A	5114229	19-05-1992	JP	A2	3154802	02-07-1991
				JP	B2	2805909	30-09-1998
US	A	4739175	19-04-1988	JP	A2	62195509	28-08-1987
WO	A1	9728420	07-08-1997	JP	A2	9210652	12-08-1997
JP	A2	10227622	25-08-1998			none	
JP	A2	9022931	21-01-1997			none	
JP	A2	8005568	12-01-1996			none	
JP	A2	7151523	16-06-1995			none	
JP	A2	3253981	13-11-1991			none	
JP	A	251049a				none	
JP	A2	1109732	26-04-1989			none	

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference <b>CJJ99014</b>	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/KR 99/00557</b>	International filing date (day/month/year) <b>16 September 1999</b> (16.09.1999)	Priority Date (day/month/year) <b>17 September 1998 (17.09.1998)</b>
International Patent Classification (IPC) or national classification and IPC  <b>IPC<sup>7</sup>: G01N 21/88, 21/84</b>		
Applicant <b>LEE Kyeng Ja et al.</b>		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examination Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>5</u> sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I. <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II. <input type="checkbox"/> Priority</p> <p>III. <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV. <input type="checkbox"/> Lack of unity of invention</p> <p>V. <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement</p> <p>VI. <input type="checkbox"/> Certain documents cited</p> <p>VII. <input type="checkbox"/> Certain defects in the international application</p> <p>VIII. <input type="checkbox"/> Certain observations on the international application</p>	

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Date of submission of the demand  <b>23 March 2000 (23.03.2000)</b>	Date of completion of this report  <b>25 January 2001 (25.01.2001)</b>
Name and mailing address of the IPEA/AT <b>Austrian Patent Office Kohlmarkt 8-10 A-1014 Vienna Facsimile No. 1/53424/200</b>	Authorized officer  <b>ERBER</b>  Telephone No. 1/53424/382

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/KR 99/00557

**I. Basis of the report****1. With regard to the elements of the international application:\***

- ☐ the international application as originally filed
- ☒ the description:  
pages 1-23, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement) under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages 24-28, filed with the letter of 8 January 2001 (08.01.2001)
- ☒ the drawings:  
pages fig. 1-15, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4. ☐ The amendments have resulted in the cancellation of:**

- ☐ the description, pages \_\_\_\_\_
- ☒ the claims, Nos. 1,2,4,5
- ☐ the drawings, sheets/fig \_\_\_\_\_

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as „originally filed“ and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/KR 99/00557

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims <u>1-11</u>	YES
	Claims _____	NO
Inventive step (IS)	Claims <u>1-11</u>	YES
	Claims _____	NO
Industrial applicability (IA)	Claims <u>1-11</u>	YES
	Claims _____	NO

### Citations and explanations (Rule 70.7)

With the response to the written opinion the applicant submitted new claims 1-11 with the limitations from the originally pending claims 3 and 6 to 16.  
Due to the limitations the new submitted claims 1-11 meet the requirement of the Patent Treaty with regard to novelty and inventive step.  
Industrial applicability for the subject matter of all claims 1-11 is obviously given.

0 8. Jan. 2000

amended page

24

## WHAT IS CLAIMED IS:

1. An electronic component lead inspection device, the device comprising:  
a pickup header for picking up an electronic component package to move  
5 same;  
a reflecting plate attached to the pickup header;  
a first light source for illuminating a light to the reflecting plate;  
a second light source for illuminating a light to the electronic component  
package;  
10 acquiring means for acquiring an image of the electronic component  
package underneath a travelling passage of the electronic component package;  
control means for controlling the first light source to illuminate a light if  
the electronic component package is a gull wing type electronic component  
package and for controlling the second light source to illuminate a light if the  
15 electronic component package is a ball grid array type electronic component  
package and for outputting an image signal of the electronic component package  
acquired by the acquiring means; and  
inspecting and displaying means for receiving the image signal of the  
electronic component package output from the control means to inspect and  
20 display the image of the electronic component package.
2. An electronic component lead inspection device, the device comprising:  
(A) a light source for illuminating a light to an electronic component  
package;  
25 (B) acquiring means for acquiring an image of the electronic component  
package, the acquiring means comprises:  
(a) image transfer means for transmitting images of bottom view  
and side view of the electronic component package, the image transfer  
means comprises:  
30 a first image transfer means for transmitting an image of

bottom view of the electronic component package, and

second and third image transfer means for combining  
images of mutually facing side views of the electronic  
component package to thereafter transfer same, and

5 (b) one or more cameras for acquiring the images of bottom view  
and side views of the electronic component package transferred through  
the image transfer means;

(C) control means for outputting an image signal of the electronic  
component package acquired by the acquiring means; and

10 (D) inspecting and displaying means for receiving the image signal of the  
electronic component package output from the control means to inspect and  
display the image of the electronic component package.

3. The electronic component lead inspection device as defined in claim 2, wherein  
15 the first image transfer means comprises one or more reflecting mirrors for  
reflecting the image of bottom view of the electronic component package to  
thereafter transfer same to the camera.

4. The electronic component lead inspection device as defined in claim 2, wherein  
20 the second and third image transfer means comprise:

two or more reflecting mirrors for respectively reflecting images of  
mutually facing side views of the electronic component package; and

one or more right angle prisms for combining images respectively  
reflected by the reflecting mirrors to the one camera.

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5. The electronic component lead inspection device as defined in claim 2, wherein  
the acquiring means comprises:

a first camera for acquiring the image of bottom view of the electronic  
component package transmitted from the first image transfer means; and

30 second and third cameras for acquiring respective the images of side

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views of the electronic component package combined and transmitted thereafter by the second and third image transfer means.

6. The electronic component lead inspection device as defined in claim 2, wherein  
5 the acquiring means further comprises a height adjusting means for adjusting heights of the camera.

7. The electronic component lead inspection device as defined in claim 6, wherein the height adjusting means comprises:

10 a guide rail formed at one side of a housing;  
a guide plate integrally formed at the camera to upwardly and downwardly move the camera along the guide rail; and  
fixing means for fixing the guide plate to the guide rail to thereby fix a position of the camera.

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8. An electronic component lead inspection device, the device comprising:

(A) a light source for illuminating a light to an electronic component package;

(B) acquiring means for acquiring an image of the electronic component  
20 package, the acquiring means comprises:

(a) image transfer means disposed on an upper of a housing to transfer images of bottom and side views of the electronic component package, and

(b) first, second and third cameras provided underneath the  
25 housing to respectively acquire bottom and side views of the electronic component package transmitted via the image transfer means, the image transfer means comprises:

a pair of reflecting mirrors centrally arranged at a housing for twice reflecting at right angle a bottom view of the electronic  
30 component package to thereafter transfer same to the first

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camera,

four reflecting mirrors respectively disposed at four side views of the housing to reflect four side views of the electronic component package lengthwise of the housing,

5 four right angle prisms mounted at four side views of the housing to respectively face the four reflecting mirrors to reflect at right angle the images of four side views reflected from the four reflecting mirrors relative to lengthwise direction of the housing, and

10 two right angle prisms respectively disposed between two facing right angle prisms out of the four right angle prisms to combine images of two side views of the two facing electronic component package and to respectively transfer same to the second and third cameras;

15 (C) control means for outputting an image signal of the electronic component package acquired by the acquiring means; and

(D) inspecting and displaying means for receiving the image signal of the electronic component package output from the control means to inspect and display the image of the electronic component package.

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9. An electronic component lead inspection device, the device comprising:

(A) a light source for illuminating a light to an electronic component package;

25 (B) acquiring means for acquiring an image of the electronic component package, the acquiring means comprises:

(a) image transfer means for combining images of mutually facing side views of the electronic component package to thereafter transfer same to a camera, and

30 (b) one or more cameras for acquiring the images of side views of the electronic component package transferred through the image

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transfer means;

(C) control means for outputting an image signal of the electronic component package acquired by the acquiring means; and

(D) inspecting and displaying means for receiving the image signal of the  
5 electronic component package output from the control means to inspect and display the image of the electronic component package.

10. An electronic component lead inspection device, the device comprising:

a light source for illuminating a light to an electronic component  
10 package;

acquiring means for acquiring an image of the electronic component package, the acquiring means further comprises a glass plate for permeating images of the electronic component package but for preventing foreign objects such as dust, mold flesh and the like from entering the acquiring means;

15 (C) control means for outputting an image signal of the electronic component package acquired by the acquiring means; and

(D) inspecting and displaying means for receiving the image signal of the electronic component package output from the control means to inspect and display the image of the electronic component package.

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11. An electronic component lead inspection device adapted to transmit an image of an electronic component package by way of image transfer means and to acquire the image transmitted by the image transfer means by way of a camera, wherein the image transfer means comprises:

25 two or more reflecting mirrors for respectively reflecting images of mutually facing side views of the electronic component package; and

one or more right angle prisms for combining images respectively reflected by the reflecting mirrors to transfer same to the one camera.

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AMENDED SHEET